

The Phenomenon of Excitation Lag of Internal Degrees
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A. E. Shtandzel'

ZHUR-FIZ-11

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Avail Armed Services Tech
Info Agency as ATI 83148

Scientific - Physics

15 30

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Mar 1948

"The Electronic Theory of the Promotion and Poisoning
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F. F. Vol'kenshteyn

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65T22

Several Invariant Quantities in the Theory of Heat
Conductivity and the Viscosity of Liquids, by
A. A. Predvoditelev, 10 pp.

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CIA/FDD/X-1225

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Standard Electrode Potentials and E.M.F. Measurements
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Sci Trans Center RT-878

Scientific - *Physics*
~~Classroom~~

CTS/DEX

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Vol XXII, No 4

Apr 1948

"The Kinetics of the Homogeneous Decomposition of
Acetone to Ketene in the Presence of Steam" 10 pp.

V. B. Fal'kovskiy, M. Ya. Kager

AEC Tr-354
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67T13

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Vol XXII, No 4

Apr 1948

"Research on the Structure of the Bunsen Burner Flame"
11 pp.

K. S. Zarembo, Ya. B Zel'dovich

Done by Cryogenic Lab, Ohio State
AMC

Tech Intel Rpt NoF-TR-2265-IA-2

Kinetics of H₂-O System

1 March 1949

67T8

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Apr 1948

"Speeding Up the Slow Reaction of the Oxidation of Hydrogen by Steam" 3 pp

V. V. Voyevodskiy

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Dutch)

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61-17011

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v. 22, p. 439-443.

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1. Hydrogen- Decomposition
2. Tungsten-Surface properties
- I. Ivanovskaya, T.
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The Solubility of Metals and the Generalized
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Vol XXII, No 4 / 513-514 Apr 1948

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7 pp.

S. A. Rozentsveyg, B. N. Kabanov

Translated

NRL Translation 229

RT 1346

67T21

On the Question About the Acceleration of the Slow
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5 pp. by V. V. Kuznetsov

2 HUR - F12 - K H117

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Vol XXII, No 5, 1948, 11 pp

"Inter-crystalline Corrosion of Aluminum Alloys"

A.I. Golubev

Proj 1915

T-53-18

4956.1B

SR 5 Dec 49

68T94

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"Set Valences"

Vol XXII, No 5, 1948, 10 pp

pp 541-48

A. G. Lesnik

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68T29

Kinetics of Combustion of In, Si and S in
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The Theory of Anomalous Phenomena Near the Melting
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Formation of Complexes and Solid Solutions
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The Study of the Kinetics of Electrode Reactions
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V. A. S. Daniel'bek, 27 pp.

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crystallization in the presence of surface-active sub-
stances. Zhur. Fiz. Khim., 23, p.729-35, 1949.
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The Semi-Conduction Properties of Organic Dyes.
I. Phthalocyanines, by A. T. Vartanyan, 22 pp.

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Godnev, I. and Morozov, V.
THERMODYNAMIC FUNCTIONS OF ETHYLENE
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Order from ATS \$4.75

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DESCRIPTORS: *Ethylene oxide, Ethylenes,
*Oxides, Thermodynamics.

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(Physics--Thermodynamics, TT, v. 7, no. 5)

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"Variations in the Formal Kinetics of the High- and Low-Temperature oxidation of Ethane = I. Kinetics of the Reaction of Slow Oxidation of Ethane at Temperatures up to 400 Degrees Centigrade"

N. M. Chirkov
S. G. Entelis

AEC Tr 282

Brookhaven

55/49T15

Diffusion of Electrolytes and a Method of
Calculation of the Diffusion Coefficient of
the Ions Constituting a Salt, by Ya. P.
Gokhshtein.

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Concerning the Texture of the Crystals $\text{-Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$
Appearing in the Corrosion of Iron, by H.A. Shchegolev
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Doc 52 GWS/DEX

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N. A. Shishakov, 7 pp.

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Adsorption of a Mixture of Vapors on Porous
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K. A. Gol'bert, 11 pp.

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Activation Energy of the Discharge of Hydrogen
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An Oscillographic Study of the Cathode Potential
During the Growth of a Thread-Like Crystal of
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No 10, 5 pp, Oct 48

"Problem of the Stability of Polymolecular Films: I.
Surface Pressure of Oily Multilayers"

Ya. B. Aron,
Ya. I. Frenkel

To be done by AMC

Ref tele - 7

15 Dec 49

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21/49T14

Zhur Fiz Khim XXII, 1146-48, 1948

Theory of Viscosity of Liquids

A. G. Stromberg (Ural Section, USSR Acad Sci,
Sverdlovsk)

(Wilson Den 2577)

Photopolymerization of Vinyl Compounds, III.
Photopolymerization of Methyl Acrylate, by Kh.
S. Bagdasar'yan.
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NLL 582B.4F (11711)

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Aron, Ya. I. Frenkel', 10 pp.

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CAPILLARY PHENOMENA IN DROPS (Kapillyarnyye
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Order from LC or SLA ml\$2.40, ph\$3.30 61-19104

Trans. of Zhurnal Fizicheskoy Khimii (USSR) 1948,
v. 22, no. 10, p. 1251-1255

A study was made of the variation of the wetting angle of water on paraffin wax with drop size, inclination of the wax surface, and deformation of the drop. The results are considered in the light of the physical mechanism of adhesion of drops to a solid surface. The rolling of drops down an inclined surface is also discussed. The influence of electrical potential differences on the contact angle was demonstrated for the case of mercury, but not for solid metallic surfaces. The observed changes in contact angle and the qualitative picture of the deformation of drops on compression, evaporation, and inclination of the surface, indicate the existence of a definite equilibrium value of the contact angle and of its irreproducible reversibility. (Author)

61-19104

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"Experimental Proof of the Theory of Supersaturation:
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S. Z. Roginskiy
T. F. Tselinskaya

AEC Tr #384

Brookhaven

Sci Info Service

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January 12, 1951 (Copy in files)

56/49T25

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Entropy of Ions in a Crystal and Solubility of Salts

A. F. Kapustinskiy and K. E. Yatsimirskiy (Inst of Gen
and Inorg Chem, Acad Sci Moscow)

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NT-83

JLA R-2188

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The Mechanism of Photo-Electrochemical Processes
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" Experim. Prof. - -
S. Z. Roginskiy

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AEC-384

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Discharge of Mercury Ions. Formation of an
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Relation of the Rate of Heterogeneous Catalytic Reaction
to the Amount of Catalyst

V. I. Goll'danskiy (Inst of Chemical Physics, Acad Science
USSR, Moscow)

Wilson Dam, 2792

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Mechanism of the Photochemical Oxidation of
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full translation available in CIA Lib on microfilm

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Order from OTS, SLA, or ETC \$1.60 TT-63-20807

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1948, v. 22, no. 12, p. 1443-1453
Other translations are available from SLA as R-02190,
14p; from NRCC as TT-114.

DESCRIPTORS: *Methanes, Oxidation, *Photochemical
reactions, *Reaction kinetics, Heat of activation,
Absorption, Oxygen, Mercury lamps, Hydrocarbons.

(Chemistry--Physical, TT, v. 11, no. 4)

TT-63-20807

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H. E. Glauber

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The Electrification of Drops During Atomization
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Vol XXIII, No 4, 18 pp, 1949

"Active Ensemble of Platinum in Oxidizing-Reducing and
Hydrogenation Processes"

N.I. Kobozev

N.A. Reshetovskaya

Translated
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The Intramolecular Hydrogen Bond and the Dipole
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in the Electric Discharge, by N. N.
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DESCRIPTORS: *Aluminum compounds, Oxides,
*Cryolite, Mixtures, *Fused materials, *Electric
potential, Anodes.

The anode overvoltage in fused mixtures of cryolite with
alumina on carbon, graphite, and platinum electrodes
was investigated. It was shown that the anode potential
varies as a function of the current density according
to the equation $E = a + b \lg i$. The numerical values
of the coefficients b were determined for all of the
cases investigated. (Author)
(Chemistry--Physical, TT, v. 10, no. 11)

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